Author Index of Volume 166

Abdusalyamova, M. N., 221, 229
Ache, H. J., 233
Aichholzer, K. D., 64
Allemand, J., 73
Almasri, Z., 389
Aselage, T. L., 28
Azad, A. M., 57

de la Bathie, R. P., 73
Beaudry, B. J., 173
Benzar, I., L1
Berger, R., 353
Bloch, J., 241
Brnicevic, N., 63
Buschow, K. H. J., 329

Caciuffo, R., 329
Chen, F. L., 45
Chuang, Y. C., 253
Chuiko, A. G., 229
Clark, N. J., 7
Clay, K. R., 153
Cordier, G., 115

van Deusen, S. B., 28
Dillard, J. G., 233
Ding, J., 303, 313
Dorsam, G., 115
Dulcic, A., 63

Eatough, M. O., 95
Eckert, J., 293
Eliseev, A. A., 229

Faslyeva, N. D., 229
Fernández, F., 367
Fornasini, M. L., 319
Fort, D., 173
Franzen, H. F., 135
Furukawa, M., 45

Gajek, Z., 377
Glasbrenner, H., 233
González-Calbet, J. M., 343
Gortzen, A., 125
Goudy, A. J., 153
Gschneidner, Jr., K. A., 173
Guo, H.-Q., 189

Hanninger, G., 103
Harbrecht, B., 135
Horyn, R., 1

Ibberson, R. M., 329
Ipser, H., 103

Janczak, J., 263
Jerez, A., 367
Jurczyk, M., 335

Kaczmarska, K., 1
Karlsson, L., 353
Keane, M. P., 353
Kejun, Z., 21
Kelm, M., 125
Klamut, P. W., 1
Klewe-Nebenius, H., 233
Kleykamp, H., 125
Komarek, K. L., 103
Kubiak, R., 263
Kulakowska, B., 81
Künne, L., 389
Kwapulinska, E., 1

Laczka, M., 163
Legoux, Y., 141
Leising, G., 64
Letant, A., 73
Liu, H., 271
López, M. L., 367

Merini, J., 141
Merlo, F., 319
Merritt, R. R., 197, 211
Mine, K., 45
Mintz, M. H., 241
Moreau, J. M., 73
Morosin, B., 28
Moze, O., 329
Mulak, J., 377
Muller-Buschbaum, Hk., 7

Nicolopoulos, S., 343
Ning, T.-S., 189
Nozieres, J. P., 73

Pan, J.-S., 11
Pani, M., 319
Pentinghaus, H., 125
Pfennig, G., 233
Pico, C., 367
Planinic, P., 63
Popovic, S., 63
Porutsky, S. G., 283
Pozek, M., 63

Rakhmatov, O. I., 221, 229
Rakvin, B., 63
Rohr, C., 115
Rosenberg, M., 303, 313

Sakamoto, Y., 45
Schluter, D., 7
Schultz, L., 293
Schweibenz, R. G., 153
Schweiger, E., 64
Sha, W., 11
Shen, B.-G., 189
Shishkin, E. A., 229
Shokirov, H. S., 221
Shumakova, T. P., 229
Sokolowska, A., 81
Song, L., 271
Spulak, Jr., R. G., 95
Sreedharan, O. M., 57
Stoch, L., 163
Sudha, R., 57
Sun, X. K., 253

Terzieff, P., 103
Tusek-Bozic, Lj., 63

Urban, K., 293

Vallet-Regí, M., 343
Veiga, M. L., 367

Wippel, V., 64
Wo, F., 189
Wolcyrz, M., 1
Wu, E., 7

Yang, L.-Y., 189
Zarynow, A., 153
Zhan, W.-S., 189
Zhang, J.-X., 189
Zhang, Y., 135
Zhangpeng, J., 21
Zhao, J.-G., 189
Zhao, M., 271
Zhong, Z. C., 253
Zhou, G. F., 253
Zhurakovsky, E. A., 283
Ziaja, J., 1
Zyrnicki, W., 81

Subject Index of Volume 166

Actinides
  Thermal diffusion of actinide elements resulting from nuclear reaction in the tantalum, 141
Alloys
  hydrogen penetration resistance and mechanical properties of electroplated Ni–P alloys, L11
  p-element–hydrogen short-range neighbouring effects for the Zr–Al–H system based on a modified Jacob's model, 7
  surface analysis studies of Zr–Co alloys and Zr–Co alloy films, 233
  the $(\alpha + \beta)$ hydrogen miscibility gaps in hydrogenated palladium-rich Pd–Y(Gd)–Ag ternary alloys, 45
  the magnetic properties and crystallization behaviour of rapidly quenched $Fe_{77}B_{23-x}Nd_x$ alloys, 189
Aluminium
  p-element–hydrogen short-range neighbouring effects for the Zr–Al–H system based on a modified Jacob's model, 7
Antimony
  the Co–Sb phase diagram and some properties of NiAs-type $CO_{1+x}Sb$, 103
  the Lu–Sb system, 229

Barium
  HREM study and image matching of $BaFe_2O_4$, 343
  stabilization of orthorhombic $Ba_2YCu_3O_{7-\delta}$ phase by the 5a group transition metal elements, 63
  study of $BaPtLa_2O_5$ and $BaNiY_2O_5$, L7
Bismuth oxide
  the direct reaction between bismuth oxide and the "1–2–3" type superconductors, 263
Bond properties
  the bond properties and cluster compounds of $FeZr_6Cs$, 389
Boron
  solution growth, structure and composition of boron carbide crystals, 28

Calcium
  a new ternary representative of the $ThCr_2Si_2$- and $CaZn_2Al_2$-structural types in the A–T–X and RE–T–X systems (A = Ca, Sr, Ba; RE = La, Ce, Pr; T = Cu, Ag, Au and X = Al, Ga), 115
  thermodynamic stability of $LaCrO_3$ by a CaF_2-based e.m.f. method, 57
Calcium carbonate
  high temperature methods for processing monazite: I. Reaction with calcium chloride and calcium carbonate, 197
Calcium chloride
  high temperature methods for processing monazite: I. Reaction with calcium chloride and calcium carbonate, 197
Carbon
  magnetic hardening of melt-spun $Sm_2Fe_{17}C_x$, 313
Chromium
  on the preferential site occupation of T = Cr on Mn in rare earth compounds of the type RT_4Al_8, 329
Cluster compounds
  the bond properties and cluster compounds of $FeZr_6Cs$, 389
Cobalt
  glass formation and extended solubilities in mechanically alloyed cobalt–transition metal alloys, 293
  magnetic behaviour of $YFe_{10.8-x}Co_xT_{1.2}$ systems (T = W and Re), 335
  phase analysis by X-ray and Mössbauer spectroscopy of melt-spun and subsequently annealed Sm-(Fe, Co or Ni)-Ti, 303
  surface analysis studies of Zr–Co alloys and Zr–Co alloy films, 233
  the Co–Sb phase diagram and some properties of NiAs-type $CO_{1+x}Sb$, 103
Crystal field effect
  uniform angular overlap model interpretation of the crystal field effect in U(5+) fluoride compounds, 377
Crystal growth
  solution growth, structure and composition of boron carbide crystals, 28

Crystal structure
a new phase in $Nd_2Fe_{14}B$ magnets. Crystal structure and magnetic properties of $Nd_6Fe_{13}Si$, 73
effect of PbO addition on crystal structure and resistivity of the 2201 type Bi–Sr–Cu–O superconductor, L1
synthesis, crystal structure and magnetic properties of Tm_6S_{11}, 135
Crystallization
the magnetic properties and crystallization behaviour of rapidly quenched $Fe_{77}B_{23-x}Nd_x$ alloys, 189

Electron spin resonance
the ESR bottleneck effect in $Gd_{1-x}RE_xCu_2Si_2$, $Gd_{1-x}RE_xCu_2Ge_2$ and $Gd_{1-x}RE_xAg_2Ge_2$ (RE = Y, La, Lu), 1
Electrotransport
solid state electrotransport of erbium, 173
Erbium
solid state electrotransport of erbium, 173
Europium
RMX compounds formed by alkaline earths, europium and ytterbium—I. Ternary phases with M = Cu, Ag, Au; X = Sb, Bi, 319
synthesis, characterization and magnetic properties of $Ln_2Te_4O_{11}$ (Ln = La, Nd, Sm, Eu, Gd, and Ho), 367
Extended solubilities
glass formation and extended solubilities in mechanically alloyed cobalt–transition metal alloys, 293

Fluorides
uniform angular overlap model interpretation of the crystal field effect in U(5+) fluoride compounds, 377

Gadolinium
the ESR bottleneck effect in $Gd_{1-x}RE_xCu_2Si_2$, $Gd_{1-x}RE_xCu_2Ge_2$ and $Gd_{1-x}RE_xAg_2Ge_2$ (RE = Y, La, Lu), 1
Gallium
investigations of the thermal stability of (Nd, Dy)-(Fe, Co)-B based magnets with small additions of niobium and gallium, 253
Glass formation
glass formation and extended solubilities in mechanically alloyed cobalt–transition metal alloys, 293

Hafnium
optimization and calculation of the Hf–Ni phase diagram, 21
HREM study
HREM study and image matching of $BaFe_2O_4$, 343
Hydrides
X-ray diffraction study of phase transitions in tantalum hydride films, 95
Hydriding
the effect of thermal annealing on the hydriding kinetics of uranium, 241
Hydrogen absorption
p-element–hydrogen short-range neighbouring effects for the Zr–Al–H system based on a modified Jacob's model, 7
Hydrogen purification
the $(\alpha + \beta)$ hydrogen miscibility gaps in hydrogenated palladium-rich Pd–Y(Gd)–Ag ternary alloys, 45

Image matching
HREM study and image matching of $BaFe_2O_4$, 343
Iron
a new phase in $Nd_2Fe_{14}B$ magnets. Crystal structure and magnetic properties of $Nd_6Fe_{13}Si$, 73
HREM study and image matching of $BaFe_2O_4$, 343
magnetic behaviour of $YFe_{10.8-x}Co_xT_{1.2}$ systems (T = W and Re), 335
magnetic hardening of melt-spun $Sm_2Fe_{17}C_x$, 313
phase analysis by X-ray and Mössbauer spectroscopy of melt-spun and subsequently annealed Sm-(Fe, Co or Ni)-Ti, 303

Kinetics
the effect of the partial replacement of lanthanum in $LaNi_5$–H with cerium, praseodymium, and neodymium on absorption and desorption kinetics, 153
the effect of thermal annealing on the hydriding kinetics of uranium, 241

Lanthanides
rare earth elements as components of special glasses, 163
Lanthanum
synthesis, characterization and magnetic properties of $Ln_2Te_4O_{11}$ (Ln = La, Nd, Sm, Eu, Gd, and Ho), 367
the effect of the partial replacement of lanthanum in $LaNi_5$–H with cerium,

praseodymium, and neodymium on absorption and desorption kinetics, 153
thermodynamic stability of $LaCrO_3$ by a CaF_2-based e.m.f. method, 57
Laves phase hydrides
soft X-ray emission studies of metal–hydrogen bonding states in zirconium-based Laves phase hydrides—II: p states and conclusions, 283
Lutetium
the Lu–Sb system, 229

Magnetic behaviour
magnetic behaviour of $YFe_{10.8-x}Co_xT_{1.2}$ system (T = W and Re), 335
Magnetic hardening
magnetic hardening of melt-spun $Sm_2Fe_{17}C_x$, 313
Magnetic properties
a new phase in $Nd_2Fe_{14}B$ magnets. Crystal structure and magnetic properties of $Nd_6Fe_{13}Si$, 73
synthesis, crystal structure and magnetic properties of Tm_6S_{11}, 135
the magnetic properties and crystallization behaviour of rapidly quenched $Fe_{77}B_{23-x}Nd_x$ alloys, 189
Magnets
investigations of the thermal stability of (Nd, Dy)-(Fe, Co)-B based magnets with small additions of niobium and gallium, 253
Manganese
on the preferential site occupation of T = Cr or Mn in rare earth compounds of the type RT_4Al_8, 329
Metal-hydrogen bonding
soft X-ray emission studies of metal–hydrogen bonding states in zirconium-based Laves phase hydrides—II: p states and conclusions, 283
Monazite
high temperature methods for processing monazite: I. Reaction with calcium chloride and calcium carbonate, 197
high temperature methods for processing monazite: II. Reaction with sodium carbonate, 211
Mössbauer spectroscopy
phase analysis by X-ray and Mössbauer spectroscopy of melt-spun and subsequently annealed Sm-(Fe, Co and Ni)-Ti, 303

Neodymium
a new phase in $Nd_2Fe_{14}B$ magnets. Crystal structure and magnetic properties of $Nd_6Fe_{13}Si$, 73
synthesis, characterization and magnetic properties of $Ln_2Te_4O_{11}$ (Ln = La, Nd, Sm, Eu, Gd, and Ho), 367
the effect of the partial replacement of lanthanum in $LaNi_5$-H with cerium, praseodymium, and neodymium on absorption and desorption kinetics, 153
Nickel
hydrogen penetration resistance and mechanical properties of electroplated Ni–P alloys, L11
optimization and calculation of the Hf–Ni phase diagram, 21
phase analysis by X-ray and Mössbauer spectroscopy of melt-spun and subsequently annealed Sm-(Fe, Co or Ni)-Ti, 303
Niobium
investigations of the thermal stability of (Nd, Dy)-(Fe, Co)-B based magnets with small additions of niobium and gallium, 253
Nitrides
spectroscopic study of a pulse plasma use for production and deposition of TiN films, 81

Oxides
synthesis, characterization and magnetic properties of $Ln_2Te_4O_{11}$ (Ln = La, Nd, Sm, Eu, Gd, and Ho), 367
Oxygen
HREM study and image matching of $BaFe_2O_4$, 343

Palladium
on the constitution of the Pd–Te system up to 28 at.% Te, 125
the $(\alpha + \beta)$ hydrogen miscibility gaps in hydrogenated palladium-rich Pd–Y(Gd)–Ag ternary alloys, 45
Phase analysis
phase analysis by X-ray and Mössbauer spectroscopy of melt-spun and subsequently annealed Sm-(Fe, Co or Ni)-Ti, 303
Phase diagram
optimization and calculation of the Hf–Ni phase diagram, 21
the Co–Sb phase diagram and some properties of NiAs-type $CO_{1+x}Sb$, 103

Phase transitions
X-ray diffraction study of phase transitions in tantalum hydride films, 95
Phosphorus
hydrogen penetration resistance and mechanical properties of electroplated Ni–P alloys, 1
Pulse plasma
spectroscopic study of a pulse plasma use for production and deposition of TiN films, 81

Rare earth compounds
on the preferential site occupation of T = Cr or Mn in rare earth compounds, of the type RT_4Al_8, 329
Rare earth monoantimonides
investigation of the rare earth monoantimonides, 221

Samarium
magnetic hardening of melt-spun $Sm_2Fe_{17}C_x$, 313
phase analysis by X-ray and Mössbauer spectroscopy of melt-spun and subsequently annealed Sm-(Fe, Co or Ni)-Ti, 303
synthesis, characterization and magnetic properties of $Ln_2Te_4O_{11}$ (Ln = La, Nd, Sm, Eu, Gd, and Ho), 367
Silicon
A new phase in $Nd_2Fe_{14}B$ magnets. Crystal structure and magnetic properties of $Nd_6Fe_{13}Si$, 73
Site occupation
on the preferential site occupation of T = Cr or Mn in rare earth compounds of the type RT_4Al_8, 329
Sodium carbonate
high temperature methods for processing monazite: II. Reaction with sodium carbonate, 211
Structural type
a new ternary representative of the $ThCr_2Si_2$- and $CaZn_2Al_2$-structural types in the A–T–X and RE–T–X systems (A = Ca, Sr, Ba; RE = La, Ce, Pr; T = Cu, Ag, Au and X = Al, Ga), 115
Superconducting
stabilization of orthorhombic $Ba_2YCu_3O_{7-\delta}$ phase by the 5a group transition metal elements, 63
Superconductor
effect of PbO addition on crystal structure and resistivity of the 2201 type Bi–Sr–Cu–O superconductor, L1
Surface analysis
surface analysis studies of Zr–Co alloys and Zr–Co alloy films, 233
Synthesis
synthesis, crystal structure and magnetic properties of Tm_nS_{11}, 135

Tantalum
thermal diffusion of actinide elements resulting from nuclear reaction in the tantalum, 141
X-ray diffraction study of phase transitions in tantalum hydride films, 95
Tellurium
on the constitution of the Pd–Te system up to 28 at.% Te, 125
synthesis, characterization and magnetic properties of $Ln_2Te_4O_{11}$ (Ln = La, Nd, Sm, Eu, Gd, and Ho), 367
Ternary alloys
a study of molar volumes of ternary alloy solid solutions, 271
Ternary phases
RMX compounds formed by alkaline earths, europium and ytterbium—I. Ternary phases with M = Cu, Ag, Au; X = Sb, Bi, 319
Thallium
an XPS study of isostructural multinary thallium chalcogenides, 353
Thermal annealing
the effect of thermal annealing on the hydriding kinetics of uranium, 241
Thermal diffusion
thermal diffusion of actinide elements resulting from nuclear reaction in the tantalum, 141
Thermal stability
investigations of the thermal stability of (Nd, Dy)-(Fe, Co)-B based magnets with small additions of niobium and gallium, 253
Thermodynamic properties
thermodynamic stability of $LaCrO_3$ by a CaF_2-based e.m.f. method, 57
Thorium
a new ternary representative of the $ThCr_2Si_2$- and $CaZn_2Al_2$-structural types in the A–T–X and RE–T–X systems A = Ca, Sr, Ba; RE = La, Ce, Pr; T = Cu, Ag, Au and X = Al, Ga), 115
Thulium
synthesis, crystal structure and magnetic

properties of Tm_8S_{11}, 135
Titanium
spectroscopic study of a pulse plasma use for production and deposition of TiN films, 81
Transition metal alloys
glass formation and extended solubilities in mechanically alloyed cobalt–transition metal alloys, 293
"1–2–3" Type superconductors
the direct reaction between bismuth oxide and the "1–2–3" type superconductors, 263

Uranium
the effect of thermal annealing on the hydriding kinetics of uranium, 241

X-ray diffraction
X-ray diffraction study of phase transitions in tantalum hydride films, 95
XPS study
An XPS study of isostructural multinary thallium chalcogenides, 353

Ytterbium
RMX compounds formed by alkaline earths, europium and ytterbium—I. Ternary phases with M = Cu, Ag, Au; X = Sb, Bi, 319
Yttrium
magnetic behaviour of $YFe_{10.8-x}Co_xT_{1.2}$ systems (T = W and Re), 335

Zirconium
p-element–hydrogen short-range neighbouring effects for the Zr–Al–H system based on a modified Jacob's model, 7
soft X-ray emission studies of metal–hydrogen bonding states in zirconium-based Laves phase hydrides—II: p states and conclusions, 283
surface analysis studies of Zr–Co alloys and Zr–Co alloy films, 233